

IN THE CLAIMS

Please cancel Claims 74 – 100 without prejudice, amend Claims 57, 64 and 68, and add new Claims 101 – 119 as follows:

1. – 56. (Canceled)

57. (Currently amended) A method of reliably transmitting data across a communication medium comprising:

encoding a symbol comprising a plurality of bits, wherein a most significant bit and a least significant bit of said symbol are adapted to indicate at least a type of said symbol type; and transmitting the symbol across the communication medium; wherein said encoding increases the reliability of said transmitting data.

58. (Previously presented) The method of claim 57, wherein the symbol is encoded with said most significant bit identical to said least significant bit.

59. (Previously presented) The method of claim 58, wherein the symbol consists of eight bits.

60. (Previously presented) The method of claim 58, wherein the symbol type corresponds to either a first type or a second type.

61. (Previously presented) The method of claim 60, wherein if said most significant bit and said least significant bit both comprise a high bit, the symbol type corresponds to one of the first and second type, and if the most significant bit and the least significant bit of the symbol both comprise a low bit, the symbol type corresponds to the other of the first and second types.

62. (Previously presented) The method of claim 61, wherein said first type comprises a data symbol, and said second type comprises a non-data symbol.

63. (Previously presented) The method of claim 61, wherein a bit adjacent to the most significant bit of said symbol and a bit adjacent to the least significant bit of said symbol are adapted to indicate a symbol subtype.

64. (Currently amended) The method of claim 63, wherein said symbol subtype comprises one of (i) a control symbol, [[and]] or (ii) an arbitration request symbol.

65. (Previously presented) The method of claim 61, wherein at least five bits of said symbol are adapted to indicate a symbol subtype, said at least five bits not including said most significant bit and said least significant bit.

66. (Previously presented) The method of claim 58, wherein said communication medium comprises a bus compliant with a high-speed serialized bus protocol.

67. (Previously presented) The method of claim 66, wherein said high-speed serialized bus protocol comprises at least one of the IEEE Std. 1394b and 1394c standards.

5 68. (Currently amended) A computerized apparatus for transmitting data across a communication medium, said apparatus comprising:

a first module ~~adapted~~ to encode a symbol comprising a plurality of bits, wherein the first module ~~is adapted to indicate~~ indicates a type of said symbol type by setting or resetting both a most significant bit and a least significant bit of said symbol; and

10 a second module ~~adapted~~ to transmit the encoded symbol across the communication medium.

69. (Previously presented) The apparatus of claim 68, wherein the symbol type corresponds to either a first type or a second type;

15 wherein if the most significant bit and the least significant bit of the symbol are both set, the symbol type corresponds to the first type, and if the most significant bit and the least significant bit of the symbol are both reset, the symbol type corresponds to the second type.

70. (Previously presented) The apparatus of claim 68, wherein a bit adjacent to the most significant bit of said symbol and a bit adjacent to the least significant bit of said symbol indicate a symbol subtype.

20 71. (Previously presented) The apparatus of claim 68, wherein a plurality of bits of said symbol are adapted to indicate a symbol subtype, said plurality of bits not including the most significant bit and the least significant bit of said symbol.

72. (Previously presented) The apparatus of claim 71, wherein said communication medium comprises a bus compliant with a high-speed serialized bus protocol.

25 73. (Previously presented) The apparatus of claim 72, wherein said high-speed serialized bus protocol comprises at least one of the IEEE Std. 1394b and 1394c standards.

74. – 100. (Canceled)

101. (New) A method of reliably transmitting data across a communication medium comprising:

30 encoding a first stream of symbols such that the most significant bit and least significant bit of each symbol indicate a type of each said symbol;

encoding a second stream of symbols from said first stream, wherein the bit length of each symbol in the second stream is equal to a bus width; and

transmitting said second stream of symbols across the communication medium.

102. (New) The method of Claim 101, wherein each symbol of the first stream comprises
5 a most significant bit with a value equal to the value of its least significant bit.

103. (New) The method of Claim 102, wherein each symbol of the first stream consists of ten bits.

104. (New) The method of Claim 102, wherein each symbol of the second stream consists of eight bits.

105. (New) The method of Claim 102, wherein the type of each said symbol corresponds
10 to either a first type or a second type.

106. (New) The method of Claim 105, wherein a bit adjacent to the most significant bit of said symbol and a bit adjacent to the least significant bit of said symbol indicate a symbol subtype.

107. (New) The method of Claim 106, wherein said symbol subtype comprises one of a control symbol and an arbitration request symbol.

108. (New) The method of Claim 105, wherein at least five bits of said symbol indicate a symbol subtype, said at least five bits not including said most significant bit and said least significant bit.

109. (New) The method of Claim 102, wherein said communication medium comprises a bus compliant with a high-speed serialized bus protocol.

110. (New) The method of Claim 109, wherein said high-speed serialized bus protocol comprises at least one of the IEEE Std. 1394b and 1394c standards.

111. (New) A computer readable apparatus having a storage medium, said storage
25 medium comprising a computer program having a plurality of instructions which, when executed by a computer:

encode a symbol, wherein the most significant bit and the least significant bit of the symbol indicate a type for said symbol;

encode a set of bytes comprising each bit from said symbol, and

30 transmit the set of bytes over a transmission medium.

112. (New) The computer readable apparatus of Claim 111, wherein the symbol consists of ten bits.

113. (New) The computer readable apparatus of Claim 111, wherein the type for said symbol corresponds to either a first type or a second type;

5 wherein if the most significant bit and the least significant bit of the symbol are both set, the type for said symbol corresponds to the first type, and if the most significant bit and the least significant bit of the symbol are both reset, the type for said symbol corresponds to the second type.

10 114. (New) The computer readable apparatus of Claim 111, wherein a bit adjacent to the most significant bit of said symbol and a bit adjacent to the least significant bit of said symbol indicate a symbol subtype.

115. (New) The computer readable apparatus of Claim 111, wherein a plurality of bits of said symbol indicate a symbol subtype, said plurality of bits not including the most significant bit and the least significant bit of said symbol.

15 116. (New) The computer readable apparatus of Claim 115, wherein said symbol subtype comprises one of a control subtype and an arbitration request subtype.

117. (New) The computer readable apparatus of Claim 111, wherein said transmission medium comprises a bus compliant with a high-speed serialized bus protocol.

20 118. (New) The computer readable apparatus of Claim 117, wherein said high-speed serialized bus protocol comprises at least one of the IEEE Std. 1394b and 1394c standards.

119. (New) The computer readable apparatus of Claim 111, wherein the set of bytes are created such that single byte error during transmission would not affect the value of the bits corresponding to the most and least significant bits of said symbol, thereby preventing a type error condition.